Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-20   (Cancelled)

21.   (New) A tool for graphically defining an expression, the tool comprising:

a graphical user interface component operable to create a graphical definition of the expression based on one or more tree structures, each of the one or more tree structures comprising a plurality of nodes and being associated with one or more lists, wherein each of the one or more lists comprises a plurality of items, each of the plurality of items being associated with a node of the tree structure associated with the respective list; and

an expression generator component coupled to the graphical user interface component, the expression generator component being operable to generate the expression based on the graphical definition created by the graphical user interface component, wherein the expression is adapted to filter or modify one or more messages published by a publisher application prior to delivery of the one or more messages to one or more subscriber applications.

22.   (New) The tool of claim 21, wherein the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message.

23.   (New) The tool of claim 21, wherein the expression is adapted to modify at least one of the one or more messages by performing one or more computations on data within the at least one message.

24.   (New) The tool of claim 21, wherein the graphical definition of the expression is created based on at least one input data tree structure and at least one output data tree structure, wherein at least one item in the one or more lists associated with the at least one input data tree structure specifies a filtering constraint, and wherein at least one item in the one or more lists associated with the at least one output data tree structure specifies a formatting definition.

25.   (New) The tool of claim 24, wherein at least one other item in the one or more lists associated with the at least one output data tree structure identifies a node of the at least one input data tree structure.

26.   (New) The tool of claim 21, wherein the expression is a structured query language statement.

27.   (New) The tool of claim 21, wherein the one or more messages published by the publisher application are in XML format.

28.   (New) The tool of claim 21, wherein at least one item in the one or more lists associated with one of the one or more tree structures comprises a free variable or a wildcard symbol.

29.   (New) The tool of claim 21, wherein at least one of the plurality of nodes in the one or more tree structures is a branch node representing a complex data structure field and at least another of the plurality of nodes in the one or more tree structures is a leaf node representing a simple data structure field, the simple data structure field comprising one of a string, an integer, a real number, and a date.

30.   (New) The tool of claim 21, wherein the graphical definition of the expression is created based on at least two input data tree structures and wherein at least one item in the one or more lists associated with a first of the at least two input data tree structures identifies a node of a second of the at least two input data tree structures.

31.   (New) The tool of claim 21, wherein at least one of the one or more tree structures is associated with two or more lists and wherein at least one item from a first of the two or more lists and at least one item from a second of the two or more lists are part of a logical statement in the expression.

32.   (New) A method for graphically defining an expression, the method comprising:

creating a graphical definition of the expression based on one or more tree structures, each of the one or more tree structures comprising a plurality of nodes and being associated with one or more lists, wherein each of the one or more lists comprises a plurality of items, each of the plurality of items being associated with a node of the tree structure associated with the respective list; and

generating the expression based on the created graphical definition, wherein the expression is adapted to filter or modify one or more messages published by a publisher application prior to delivery of the one or more messages to one or more subscriber applications.

33.   (New) The method of claim 32, wherein the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message or by performing one or more computations on data within the at least one message.

34.   (New) The method of claim 32, wherein the graphical definition of the expression is created based on at least one input data tree structure and at least one output data tree structure, wherein at least one item in the one or more lists associated with the at least one input data tree structure specifies a filtering constraint, and wherein at least one item in the one or more lists associated with the at least one output data tree structure specifies a formatting definition.

35.   (New) A computer readable medium containing a computer program for graphically defining an expression, the computer program comprising instructions for:

creating a graphical definition of the expression based on one or more tree structures, each of the one or more tree structures comprising a plurality of nodes and being associated with one or more lists, wherein each of the one or more lists comprises a plurality of items, each of the plurality of items being associated with a node of the tree structure associated with the respective list; and

generating the expression based on the created graphical definition, wherein the expression is adapted to filter or modify one or more messages published by a publisher application prior to delivery of the one or more messages to one or more subscriber applications.

36.   (New) The computer readable medium of claim 35, wherein the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message or by performing one or more computations on data within the at least one message.

37.   (New) The computer readable medium of claim 35, wherein the graphical definition of the expression is created based on at least one input data tree structure and at least one output data tree structure, wherein at least one item in the one or more lists associated with the at least one input data tree structure specifies a filtering constraint, and wherein at least one item in the one or more lists associated with the at least one output data tree structure specifies a formatting definition.

38.   (New) A system for graphically defining an expression, the system comprising:

    means for creating a graphical definition of the expression based on one or more tree structures, each of the one or more tree structures comprising a plurality of nodes and being associated with one or more lists, wherein each of the one or more lists comprises a plurality of items, each of the plurality of items being associated with a node of the tree structure associated with the respective list; and

means for generating the expression based on the created graphical definition, wherein the expression is adapted to filter or modify one or more messages published by a publisher application prior to delivery of the one or more messages to one or more subscriber applications.

39. (New) The system of claim 38, wherein the expression is adapted to modify at least one of the one or more messages by merging data from one or more databases into the at least one message or by performing one or more computations on data within the at least one message.

40. (New) The system of claim 38, wherein the graphical definition of the expression is created based on at least one input data tree structure and at least one output data tree structure, wherein at least one item in the one or more lists associated with the at least one input data tree structure specifies a filtering constraint, and wherein at least one item in the one or more lists associated with the at least one output data tree structure specifies a formatting definition.